



Chico

**Golden
Empire
Amateur
Radio
Society, Inc.**

"Dedicated to Public Service"

THE RADIATOR



W6RHC
IRLP #8170



www.gearsw6rhc.org

P.O.Box 202 Chico, CA 95927

July 2020 Newsletter

GEARS Founded August 13, 1939

The COVID-19 virus precautions continue requiring cancelation of most events. None of us like this situation, however we will do our best to keep members safe and healthy.

Field Day was June 27th & 28th. We had a smaller yet accomplished group out at the Masonic Lodge, with other GEARS members working from home. We are still adding up the numbers.

Once again we held our GEARS general meeting online via Zoom video and phone conference. We will send you an email with the link.

Please be assured that we feel Zoom meetings are safe. The security issues that some users were concerned about have been resolved. Of course you can also participate by phone, which is as safe as any phone call.

We will also hold the July general and board meeting online. Watch your email for a link and phone number. The monthly breakfast is cancelled for the time being.

This is a great time to reach out to your fellow amateur radio friends via radio or phone. We can keep in touch even though we are isolated otherwise. Try to participate in the local nets too. Let's relax and do what we can to help one another. We will get through this current situation.



'73
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530-893-3314



Join GEARS on Facebook
www.facebook.com For
timely news and additional
information.

July 2020 Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2 7pm PARS Net 7:30pm Simplex Net	3	4 
5 8pm OARS Net	6 7pm GARS Net 8pm ARES Net	7 7:30pm GEARS Net	8	9 7pm PARS Net 7:30pm Simplex Net	10 7pm OARS Meeting TBD	11 GEARS Board Meeting online
12 8pm OARS Net	13 7pm GARS Net 8pm ARES Net	14 7:30pm GEARS Net	15	16 7pm PARS Net 7:30pm Simplex Net	17 7pm GEARS Meeting online	18
19 8pm OARS Net	20 7pm GARS Net 8pm ARES Net	21 7pm ARES meeting 7:30pm GEARS Net	22	23 7pm PARS Net 7:30pm Simplex Net	24	25
26	27 7pm GARS Net 8pm ARES Net	28 7:30pm GEARS Net	29	30 7pm PARS Net 7:30pm Simplex Net		

VEC Testing, FCC License Exam available by appointment. For information or registration call Tom Rider, W6JS 514-9211

Chico Breakfast Cancelled until things settle down with the COVID-19 virus.

GEARS Board Meeting 2nd Saturday online.

OARS Meeting Second Friday of the month, TBD (To Be Determined)

GARS Meeting Second Thursday of the month, TBD

Butte ARES Meeting 3rd Tuesday, TBD Contact Dale Anderson, KK6EVX 826-3461 for more information.

GEARS Meeting, third Friday of the month, online till further notice pm, meeting at 7:00 pm.

OARS Breakfast 4th Saturday of the month TBD

NETS:

OARS Club Net Sunday 8pm 146.655 Mhz - PL 136.5

GARS Club Net: Monday, 7:00 pm 147.105 MHz + PL 110.09

Butte ARES Net Mondays 8pm 145.290 MHz - PL 110.9

Yuba Sutter Club Net Monday 7pm 146.085 MHz + PL 127.3

GEARS Club Net Tuesdays 7:30 PM 146.850 MHz - PL 110.9

PARS Club Net Thursday 7pm 145.290 - PL 110.9

Simplex Net Thursday 7:30 p.m. 146.52 no tone

Yuba Sutter ARES Net Thursdays 7pm 146.085 MHz + PL 127.3

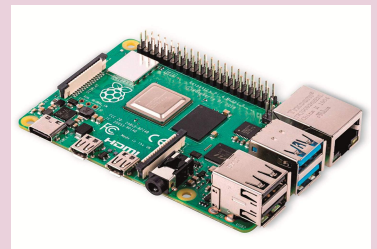
Sacramento Valley Traffic Net Nightly 9:00 PM 146.850 MHz - PL 110.9

Slice of Pi

Our July online meeting Raspberry Pi tutorials will continue.

Please let us know your interests in this computer and what lessons or applications you would like to hear.

If you have any questions or comments contact Rick Hubbard KI6VOS at rick.hubbard.email@gmail.com.



Radio Amateur's Call for Help Relayed from across the Atlantic

When Richard Tashner, N2EO, of Massapequa, New York, suffered a medical emergency on May 18, his DMR radio was closer than his phone. His call for help was answered by Maxis Johnston, GM0MRJ, who put out a call for "anyone in the states."

Kent County Amateur Radio Club member Ken Dix, KB2KBD, in Delaware heard the call on the local 146.91 MHz repeater, which was linked to the North American talk group. Dix called authorities in Tashner's vicinity, and help was dispatched.

Dix said the dispatcher in New York was able to hear part of the call and was amazed at how an amateur radio communication had gone from New York to Scotland to Delaware and then back to New York.

The dispatcher expressed surprise at how quickly the information had been relayed across the Atlantic. The Delaware repeater, at the Delaware State Communications complex, is set on C4FM Fusion and linked to DMR on "America's Net." — Thanks to the ARES E-Letter via Jerry Palmer, N3KRX

Source: ARRL



Mt. St. John

Our new repeater on Mt. St. John is now working much better.

Michael Favor N6FAV and Mike Mike Ellithorp KF6OBI worked on the mountain this past week. They replaced the feedline and also set the tone on the repeater output. Activate the CTSS on your radios and give the repeater a try.

145.410 Mhz PL is 123.0 Negative offset.



GEARS Century Club Members

Rick Hubbard
Bennett Laskey

Thank you very much for your extra support

EchoHam version v2.10 has been released

EchoHam allows Amateur Radio operators to use the Echolink network from their Mac. You must be a licensed Amateur Radio operator to use this software.

Echoham, the OS X client for Echolink operation has been updated to version 2.07 and is now available in the OS X App Store. Echoham is a free download and can be obtained from the Apple App Store.



Great Mothball Fleet Raid

A group of hams volunteer to rescue vintage radio gear from mothballed Navy ships.

By Susan Meckley, W7KFI

Planning was everything. Timing was especially crucial and arrival at the “jump off” point would have to be precise or there would be no one to guide our raiding party. Those selected for the mission would have to be in shape to withstand the rigors of the raid, which was to involve climbing countless ladders and stairs and walking seemingly endless miles while searching through dark compartments for the items of our quest.

Our mission was to locate and procure supplies and equipment for the USS Missouri, a floating museum and tribute to all those that lost their lives on December 7, 1941 and to all those who served in WWII. The USS Missouri, BB-63, was the world's last and most famous battleship. It was on her deck on September 2, 1945 that the Japanese formally surrendered ending WWII. She is moored on Pearl Harbor's historic Battleship Row.

December 7 is commonly referred to and thought of as the date of the Japanese raid on Pearl Harbor. In actuality, many other bases were attacked prior to that event. Kaneohe, Wheeler Army Airfield, Fort Shafter, Schofield Barracks and others were attacked before the raiding aircraft arrived at Pearl Harbor.

A group of USS Missouri volunteers, including Ned Conklin, KH7JJ; Chuck Epperson, AH6SC; Sue Meckley, W7KFI, and Pete Wokoun, KH6GRT, met at the mothball fleet's shipyard entrance at 0730. The Mothball Fleet is a collection of decommissioned ships that are awaiting disposal in the Naval Inactive Ship Maintenance Facility at Pearl Harbor. We teamed up with “Rod” Rodriguez, our guide for the raid, and armed ourselves with hard hats and flashlights.



Our mission involved three targets, a Marine assault ship with an aircraft landing deck, a research ship and a supply ship. To reach our targets we had to slosh about in a landing craft containing about 8 inches of water that had accumulated after one of Hawaii's infamous downpours.

The Assault

Hours were spent going up and down ladders and stairs, around and through the multitude of compartments on board these ships. We were looking not only for specific pieces of electronic gear for Radio Central on the USS Missouri, but also items that could be used or displayed almost anywhere on board the battleship museum. Lots of items were indicated for removal, including but not limited to phones, signs, binocular storage cabinets, cables, porthole hardware, magnetic compasses, repeaters, instruments, antenna tuners.

It was amazing to see just how much gear had been stripped from the ships. I was struck by the thought of how much equipment — not to mention money — it took to outfit one ship for sea. Seen from the outside these ships

look plenty big, but get inside one and roam around, and you begin to realize what a monumental task it must be to prepare them for duty with the US Navy.

Ghostly Ships

It certainly felt spooky wandering through the ships with no one aboard besides our raiding party, the compartments almost bare and only a few lights dimly illuminating the interiors. I was surprised by the amount of rainwater on the decks of several compartments, apparently left there from the torrential Hawaiian downpours that have penetrated the empty hull feed-throughs. To keep from losing anyone, we all kept within a compartment of each other. No roaming on one's own was allowed.

Everything was fair game. If we could, we removed items on the spot. If an item was hardwired in place or mounted securely, we noted the ship, compartment number and item, and tagged it for later removal by shipyard personnel.

I have to admit, since I am in my 70s, this raid almost did me in — it took 2 days for my legs to recover. I hadn't realized how many compartments, passageways and ladders these ships had. (Hey US Navy! — ever hear the term “elevator?”) The guys seemed to be faring much better and returned the next day for another go at it. Reluctantly I had to beg off. I am quite sure my legs would not have been up to the task of another day of “procurement.”



Join the Navy and DX the World

Well, that's the story of the great “Mothball Fleet Raid.” Sadly (grin) I won't be in Hawaii for next year's raid. Instead I will be somewhere in the South Pacific continuing my multiyear solo DXpedition to several rare and beautiful South Seas islands such as V7, T32, V73, etc. Listen for me; perhaps you can put me (and my South Seas DX location) in your log.

Still, the raid was an experience to be treasured. I enjoyed it immensely and gained a new appreciation of and respect for the US Navy.

Radio Central

If you are ever in Honolulu, by all means visit the USS Missouri. Contact KH6BB in advance and arrangements can be made for you to operate from Radio Central. Operating from KH6BB is quite an experience. Plus you'll gain an appreciation of the propagation problems we have here in Hawaii, which is the most remote inhabited island in the world. After all, a kW with a 30 foot tall discone antenna and a ground consisting of the USS Missouri and the Pacific Ocean can't be all that bad.

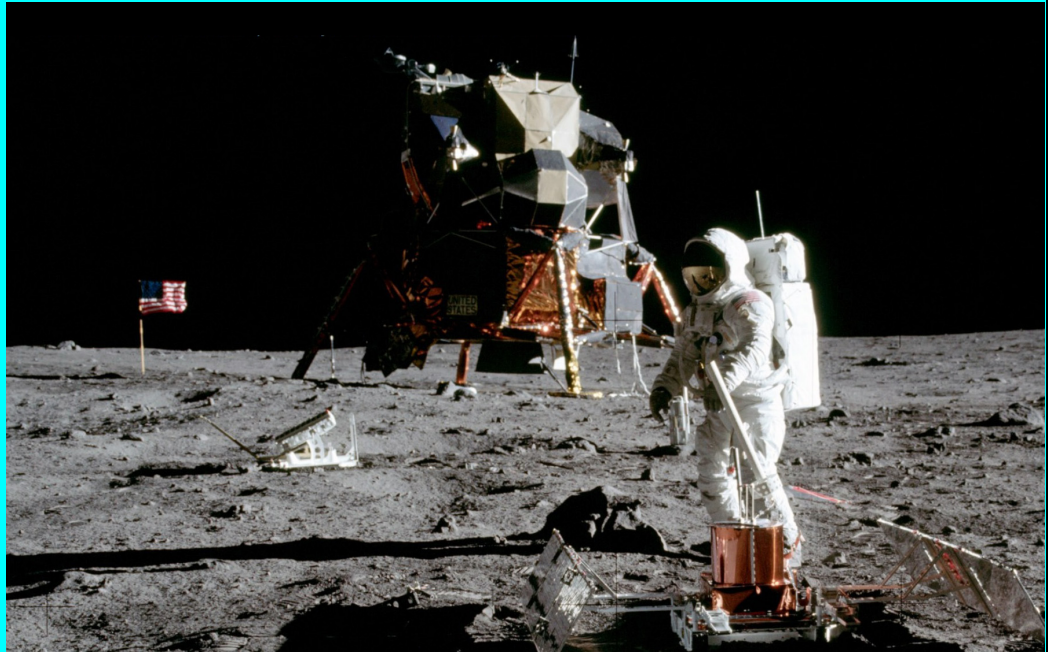
Susan Meckley, W7KFI, is on a multiyear solo DXpedition to the South Pacific Islands. She and her good ship USSV Dharma (a Challenger 32 sailboat) will be visiting many rare and beautiful islands and putting them on the air.

Susan is a retired US Army Master Sergeant with 32 years of service. Susan can be reached at w7kfi@arrl.net or ussvdharma@yahoo.com.

The story behind the "Beep"

If you've ever listened to the audio from the old Apollo missions you probably remember a 'beep' that would be in all transmissions. Ever wonder what that was all about?

This sound is called a Quindar tone, named after the manufacturer Quindar Electronics, Inc. Which designed the tone generation and detection equipment. These tones are actually used to turn on and off, or "key," the remote transmitters at the various tracking stations (Merritt Island Launch Area—now Kennedy Space Center, Bermuda, Australia, etc.) that were used to communicate with the Mercury through Apollo spacecraft and, in some cases, are still used with the Space Station. A one-half second tone burst is



generated when someone in a control room depresses the push-to-talk (PTT) button of their headset. The decoder at the remote transmitter site detects this tone and keys the transmitter. When the PTT button is released a different frequency tone burst is generated. When the decoder detects this second tone, it unkeys the transmitter. Because the telephone lines between the control rooms and the remote transmitters were originally designed to carry only voice frequencies, the tones had to be in the voice frequency range ("in-band signaling") and thus audible to humans. The tone signaling could have been done on a separate phone line, but to keep costs down, signaling and audio were done on the same line."

"Although it usually worked well, there were a couple of peculiarities with this system. If the transmitter was keyed and the telephone line connection broken, the transmitter would never get the tone to turn off. To prevent this there was a "transmitter on" light at each remote site that would come on when the transmitter was keyed. Someone was supposed to monitor the circuit and if the audio dropped, but the "transmitter on" light was still on, they would have to manually unkey the transmitter. Also, just before communications was handed over to a new tracking station, the key-unkey tone pair was sent 10 times to ensure that everything was functioning correctly. This was done before the audio was patched to the tracking station's line so it wasn't heard in the control room or on NASA Select audio.

The Quindar system was actually built from a piece of equipment that was used to put multiple teletype circuits on a single phone line by means of frequency domain multiplexing. Because replacement parts are no longer available, an "out-of-band signaling" system was installed in 1998 for the transmitters located in the U.S. This system uses a continuous tone that is below the normal audio frequency range, just like a PL tone on a repeater. When the tone is present, the transmitters are keyed. When the tone is not present, the transmitters are unkeyed. It worked fine, but the Astronaut Office complained about the lack of tones which everyone had become accustomed to as an alert that a transmission was about to start. So, the Quindar tone generator, which was still installed in case it was necessary to key the transmitters at an overseas site, was re-enabled.

Club Officers:

President.....Jim Matthews, K6EST
Vice-President.....Kent Hastings, WA6ZFY
Secretary.....Susan Check, KE6LTY
Treasurer.....Kathy Favor, K6FAV
Director.....Rick Hubbard, KI6VOS
Director.....Dale Anderson, KK6EVX
Director.....Bennett Laskey, K6CEL
Past President.....Tom Rider, W6JS
VEC.....Tom Rider, W6JS



Instead of four 50-ohm resistors, I got'cha one 200-ohm. It was much cheaper.



Watch it, Sammy—here comes the fuzz.